

What is claimed is:

1. A solid state imaging apparatus comprising:

an image pickup means for alternately outputting two kinds of video
5 signals within a period of field, said two kinds of video signals being a long-term
exposure signal having a long exposure time and a short-term exposure signal
having a short exposure time, and

a mixing means for mixing said long-term exposure signal and said short-
term exposure signal at a predetermined brightness level,

10 wherein a setting means is provided for independently setting a gain and
a knee point for each of said long-term exposure signal and said short-term
exposure signal.

2. The solid state imaging apparatus in accordance with claim 1, wherein
15 said setting means for independently setting the gain and the knee point for each
of said long-term exposure signal and said short-term exposure signal
comprises:

a long-term/short-term discrimination pulse generator which generates a
signal discriminating between a period for said long-term exposure signal and a
20 period for said short-term exposure signal;

a gain setting means for setting a gain; and

a knee point setting means for setting a knee point,

wherein a set value for the gain of said gain setting means and a set value
for the knee point of said knee point setting means are respectively selected
25 based on the discrimination signal generated from said long-term/short-term
discrimination pulse generator, thereby independently setting the gain and the
knee point for each of said long-term exposure signal and said short-term
exposure signal.

30 3. The solid state imaging apparatus in accordance with claim 1, further
comprising:

a means for detecting an average brightness value of said short-term exposure signal, and

a microcomputer for performing an algorithm which is used to calculate said gain and said knee point based said detected average brightness value of said short-term exposure signal.

5